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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/734,660 | 12/15/2003 | Hajime Nakagawa | FS-F03216-01 | 7673 |
| 37398 | 7590 | 03/23/2005 | EXAMINER | |
| TAIYO CORPORATION 2111 JEFFERSON DAVIS HIGHWAY #412, NORTH ARLINGTON, VA 22202 | | | CHEA, THORL | |
| | | | ART UNJT | PAPER NUMBER |
| | | | 1752 | |

DATE MAILED: 03/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/734,660 | NAKAGAWA ET AL. | |
| | Examiner | Art Unit | |
| | Thori Chea | 1752 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 15 December 2003.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-21 is/are pending in the application.
 - 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-21 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12152003;10252004.
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-2, 13 rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Goto (US Patent No. 6,156,491). Goto discloses a photothermographic material having at least one image forming layer having a light-insensitive silver salt, a light sensitive silver halide, reducing agent for silver salt and binder and a protective layer wherein preferred organic silver salt contains silver behenate of 85 mole % or more and preferably 95 mole % or more and wherein the water-insoluble polymer latex is used in the protective layer. See Example in columns 94-98 especially the protective layer in column 97, lines 45-65; column 89, lines 27-45; column 7, lines 49-58. The non-photosensitve organic silver salt of the claimed invention contains 90 % by mole or more of silver behenate which overlaps the preferred range of the non-photosensitve organic silver salt taught in Goto which is within a range of 85 mole % or more and preferably 95 mole % or more. Accordingly, the

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invention as claimed anticipated the material taught in Goto when non-photosensitve organic silver salt of the claimed invention contains 90 % by mole or more. Alternatively, it would have been obvious to the worker of ordinary skill in the art use non-photosensitve organic silver salt within the range of 85 mole % to 90 mole % such as suggested by Goto with a reasonable expectation of achieving a highly useful material. The property such as “loose fluidity upon decrease in temperature” in claim 13 is inherent to the coating composition containing polymer latex taught in Goto.

4. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable Goto (US Patent No. 6,156,491) as applied to claims 1-2, 13 above, and further in view of Morita (US Patent No. 6,582,898). The gelling agent has been known in Morita in column 27, lines 40-68. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use the gelling agent in the material of Ishigaki to lowering the fluidity of the system, and thereby provide a material as claimed.

5. Claims 15-20 is rejected under 35 U.S.C. 103(a) as being unpatentable Goto (US Patent No. 6,156,491) as applied to claims 1-2, 13-20 above, and further in view of Oya et al (US 2001/0051319A1) and Andrews et al (US Patent No. 4,113,854). Oya et al on page 40, [0166] to page 41, [0168] to [0170] discloses water soluble polymers such as dextran, methylcellulose, animal protein such as gelatin, agar, polyvinyl alcohol as thickener for imparting coating property. Adrews et al in column 2, lines 34-48 discloses a known water-soluble polymer as thickening agent for polymer latex such as gum karaya, gum Arabic and gelatin. It would have been obvious to the worker of ordinary skill in the art at the to use the water-soluble polymer

other than gelatin known in Oya et al and Andrews et al to impart the coating property of the protective layer taught in Ishigaki et al, and thereby provide a material as claimed.

6. Claims 3-5 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Ishigaki et al (US Patent No. 6,261,754)

Ishigaki et al discloses a photothermographic material having protective layer as claimed. See the photothermographic material exemplified in columns 66-72, especially the lower and protective layer which contain polymer latex, plasticizer, and polyvinyl alcohol wherein the component of the binder is polymer latex in column 69, lines 29-55; the protective layer having fluorine-containing surfactant in column 11; the latex binder for the protective layer in column 8; the hydrophilic polymer for dispersion stabilizers in the image forming layer and protective layer such as polyvinyl alcohol, methylcellulose with an amount of 30 % by weight or less with respect to the entire binder in column 8, lines 50-65; column 9, lines 1-40; the protective layers made of two or more layer in column 7, lines 17-37; and the light-insensitive organic silver salt including silver behenate in column 15, lines 30-35. Ishigaki discloses a photothermographic material having an outermost layer and a layer adjacent to the outermost layer containing a polymer latex and polyvinyl alcohol, but fails to state the property thereof such "can loose fluidity upon an decrease in temperature" such as presented in the claimed invention. However, this property is considered as inherent to the coating composition of the protective layer taught in Ishigaki since the protective layer is hardened after coating.

7. Claims 6-12, 21 are rejected under 35 U.S.C. 103(a) as being unpatentable Goto (US Patent No. 6,156,491) as applied to claims 1-2, 13-20 above, and further in view of Oya et al (US 2001/0051319A1) and Andrews et al (US Patent No. 4,113,854). Oya et al (US

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2001/0051319A1) and Andrews et al (US Patent No. 4,113,854). Oya et al on page 40, [0166] to page 41, [0168] to [0170] discloses water soluble polymers such as dextran, methylcellulose, animal protein such as gelatin, agar, polyvinyl alcohol as thickener for imparting coating property. Andrews et al in column 2, lines 34-48 discloses a known water-soluble polymer as thickening agent for polymer latex such as gum karaya, gum Arabic and gelatin. It would have been obvious to the worker of ordinary skill in the art at the time the invention was made to use the water-soluble polymer other than gelatin known in Oya et al and Andrews et al to impart the coating property of the protective layer taught in Ishigaki et al, and thereby provide a material as claimed.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
9. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thorl Chea whose telephone number is (571) 272-1328. The examiner can normally be reached on 9 AM-5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cynthia H Kelly can be reached on (571)272-1526. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tchea *TM*
March 19, 2005

Thorkheea
Thorl Chea
Primary Examiner
Art Unit 1752